

SPECIFICATION AMENDMENTS

Please amend paragraphs 23, 34, 41, 43, and 44 of the substitute specification as follows.

[0023] Stainless steel, particularly Cr-Ni steel 1.4541, Cr-Ni Cr-Ni steel 1.4571 or Cr-Al steel 1.4767, is used as a particularly suitable substrate. It is expedient for the substrate to be sand-blasted or roughened in some other way, for example chemically, and to undergo alkaline degreasing prior to the coating. This improves the adhesion of the catalytically active material 6 to the substrate 4.

[0034] ~~Figure 3 shows Figures 3a, 3b, and 3c show~~ scanning-electron microscope images of preferred catalytic converters with dendritic platinum clusters (Figures 3a, 3b), and with rhodium clusters which are of substantially dendritic form (Figure 3c).

[0041] Figure 4 shows a scanning-electron microscope image of a further preferred catalytic converter with spherical platinum clusters. The deposition takes place using a direct voltage V_{dc} of 1.2-1.4 volts and an alternating voltage V_{ac} with $V_{pp}=0.4$ volt and 100 Hz; the deposition bath otherwise corresponds to that used for ~~Figure 3~~ Figures 3a and 3b.

[0043] ~~Figure 5 shows Figures 5a and 5b show~~ a comparison of scanning-electron microscope images of a catalytic converter with dendritic platinum clusters before (Figure 5a) and after (Figure

5b) a long-term test, in which the catalytic converter was exposed to an H₂/CO mixture at high temperature for more than 200 h. Although exposed to high temperatures of up to 600°C, the porous or non-cohesive platinum layer as catalyst remains stable; the clusters remain fixed in position and do not converge. The layer which has been deposited in accordance with the invention demonstrates that the clusters in practice do not change before and after long-term use.

[0044] ~~Figure 6 shows Figures 6a and 6b show~~ a comparison of rough (Figure 6a) and smooth (Figure 6b) surface profiles of steel substrates which have been used for the deposition of the platinum. The adhesion of the platinum clusters to the roughened substrate is significantly better than the adhesion to the smooth substrate; the layers are wipe-resistant, while the layers on an untreated, smooth substrate are not wipe-resistant. The surface roughness is preferably between 0.3 μm and 10 μm, particularly preferably between 0.3 μm and 3 μm.